

1.0 INTRODUCTION

1.1 PROJECT OBJECTIVES

The purpose of this document is to provide information to the California State Lands Commission (CSLC) and its staff, other local, state and federal agencies and the public in evaluating the proposed Broad Beach Restoration Project. In September 2011, the city of Malibu approved the formation of the Broad Beach Geological Hazard Abatement District (GHAD or Applicant), which was proposed for formation by the Trancas Property Owners Association (TPOA). The GHAD is seeking approval from the CSLC through the issuance of a lease to restore an approximate 44-acre area of beach and sand dunes and authorize the use of an existing 4,100-foot-long emergency rock revetment at Broad Beach in Los Angeles County, California. For its Broad Beach Restoration Project (Project), the GHAD proposes to import an estimated 600,000 cubic yards (cy) of beach- and dune-quality sand to Broad Beach with the goal of re-establishing a wide sandy beach berm backed by a restored dune system, and bury the existing, but not previously authorized by the CSLC, emergency rock revetment under these restored sand dunes. These proposals are detailed in documents the Project proponents submitted to the CSLC, most recently in the GHAD's Application to the CSLC requesting a lease of State-owned land for the Project (March 2012), and the GHAD's responses to CSLC staff's request for more information (June 2012).

In order to explain the need for the Project, and to guide development and evaluation of alternatives, the GHAD was asked to define its Project objectives, which are as follows:

- Protect existing homes, structures, and other improvements – including septic systems – from ongoing coastal erosion along Broad Beach;
- Create and maintain a wide sandy beach backed by a restored dune system similar to that which historically occurred along this reach of coastline;
- Provide for enhanced public access along Broad Beach while maintaining homeowner beach access and privacy through establishment of consistent lateral access along the beach;
- Restore and enhance native dune habitats along Broad Beach; and
- Add sandy intertidal habitat to support native fauna (e.g., grunion, shorebirds).

1.2 APTR PURPOSE AND SCOPE

Generally, the CSLC relies on an environmental review pursuant to the California Environmental Quality Act (CEQA; Pub. Resources Code, § 21000 et seq.) to assess a project's impacts to public trust resources and values. However, the GHAD's implementation of the Project is statutorily exempt from CEQA as an "[i]mprovement caused to be undertaken ... and all activities in furtherance thereof or in connection

therewith, shall be deemed to be specific actions necessary to prevent or mitigate an emergency....” (Pub. Resources Code, §§ 26601 & 21080, subd. [4][b]). Although a CEQA document will not be prepared, the CSLC as one of the State’s agencies with responsibility over the its sovereign trust lands and the Public Trust has prepared this Analysis of Impacts to Public Trust Resources and Values (APTR) document to analyze and address the Project’s impacts specifically to public trust lands, resources and values, and certain beach lateral Access and Recreational Use Easements (AREs) in:

- The Broad Beach Restoration Area (Project area); and
- The Off-site Project areas, which include offshore sand source areas and public trust lands and resources along transportation corridors.

Section 1.3 below provides detailed background of the Public Trust Doctrine and public trust lands and resources.

In addition to describing potential Project impacts, the APTR will summarize recommended avoidance and minimization measures (AMMs) for the Project’s use of public trust lands and describe potential Project alternatives that may substantially lessen or eliminate adverse project effects. The APTR will assist the CSLC in deciding whether or not to grant a lease of public trust lands and under what terms for the Project. Also, because the in-place revetment was installed under emergency permits and not a lease, the CSLC will use the APTR to identify any measures that should now be established to avoid or minimize issues associated with installation of the revetment on public trust lands.

The Project will also be reviewed by a number of local, State, and Federal agencies as noted in Section 1.5, *Permits, Approvals, and Regulatory Requirements*. These agencies may use information contained in the APTR as part of their decision-making processes but may also wish to develop their own planning and environmental analyses to support consideration of issuance of Project-related permits and approvals, as necessary, as the scope of Project review in this APTR is focused upon the impacts to public trust resources and values within the jurisdiction of the CSLC.

1.2.1 APTR Organization

The APTR is organized as follows:

- Section 1.0 – *Introduction* describes the Project objectives, the organization of the APTR document, and background of the public trust lands and resources.
- Section 2.0 – *Description of Proposed Project* describes the Project, its location, construction necessary to facilitate its implementation, and an overview of its long-term maintenance requirements.

- 1 • Section 3.0 – *Analysis of Impacts to Public Trust Resource and Values* describes
2 existing environmental conditions, Project-specific impacts, and avoidance and
3 minimization measures.
- 4 • Section 4.0 – *Alternatives* identifies and assesses alternatives to the Project and
5 compares their impacts to those of the Project.
- 6 • Section 5.0 – *Monitoring Implementation Program* presents general monitoring
7 procedures, identifies responsible parties, and establishes timing for monitoring.
- 8 • Section 6.0 – *Report Preparation Sources* presents information on the
9 qualifications of those who prepared the APTR.
- 10 • Section 7.0 – *References* lists reference materials used to prepare the report.
- 11 • Appendix A – Distribution List – Contains the distribution list, including the mailing
12 list of agencies and organizations that will receive a copy of the APTR.
- 13 • Appendix B – Coastal Processes Analysis – Contains the technical analysis that
14 informs the discussion in Section 3.1, *Coastal Processes*.
- 15 • Appendix C – Dune Restoration Plan – Includes a proposed conceptual dune
16 restoration plan which outlines general goals and measures that should be
17 considered in the drafting of a comprehensive dune restoration plan (see Section
18 3.4, *Terrestrial Biological Resources*).
- 19 • Appendix D – Biological Resource Surveys – Includes biological resource surveys
20 for the Broad Beach Restoration Area.
- 21 • Appendix E – Recreational User Survey – Contains the results of the informal
22 public use survey of Broad Beach conducted in June 2012.
- 23 • Appendix F – Geotechnical Investigation of Revetment – Contains the results of a
24 geotechnical investigation of the emergency revetment on Broad Beach.
- 25 • Appendix G – Air Quality Calculations – Contains the air quality calculations which
26 inform the discussion in Section 3.7, *Air Quality*.
- 27 • Appendix H – Cultural Resource Assessment – Includes the results of a cultural
28 resource assessment of the Project area as well as the Off-site Project areas.
- 29 • Appendix I – Transportation Study – Includes the results of a transportation study
30 which was conducted in the vicinity of the Broad Beach Restoration Area. A

supplemental transportation study was conducted for the onshore Calleguas Creek stockpile site in Ventura County and is in Appendix K.

- Appendix J – Alternatives Screening – Includes a description of the screening process implemented to identify alternatives for analysis, and describes those alternatives that were considered but not further analyzed.
- Appendix K – Alternative Beach Nourishment Sand Source Technical Reports for Manhattan Beach Sand Source (Alternative 4.2.7b) and Calleguas Creek stockpile (Alternative 4.2.7c).

1.2.2 Project Area Description

The Project areas for this APTR have been established in two tiers of scope: a Broad Beach Restoration Area (Project area) and Off-site Project areas, as outlined below. These areas are described in more detail in Section 2.0, *Project Description*.

Table 1-1. Project Area and Off-site Project Areas Location and Description

Broad Beach Restoration Area (Figure 1-1 and Figures 2-3 through 2-6)	<ul style="list-style-type: none"> • Broad Beach, extending laterally for more than 6,700 feet from Lechuza Point to the western parking lot for Zuma Beach County Park, and vertically from just inland of the existing emergency revetment to the seaward limits of proposed beach widening • Encompasses the approximate 42-acre beach and dune restoration area, staging and vehicle trail areas at Zuma Beach, as well as public coastal access points adjacent to the planned restoration project.
Off-Site Project Areas (Figure 1-2)	<ul style="list-style-type: none"> • Associated with sand sources and offshore transportation routes from the borrow sites (i.e., Trancas Sediment Deposit site, Dockweiler State Beach, and Ventura Harbor) to the Project area. • Includes public trust lands and beaches in the vicinity of the borrow sites, as well as beaches downcoast of the Project area (e.g., Zuma Beach).

1.3 PUBLIC TRUST DOCTRINE AND PUBLIC TRUST LANDS

The origins of the Public Trust Doctrine are traceable to Roman law concepts of common property. Under Roman law, the air, the rivers, the sea and the seashore were incapable of private ownership; they were dedicated to the use of the public (Institutes of Justinian 2.1.1). Under English Common Law, this principle evolved into the Public Trust Doctrine pursuant to which the sovereign held the navigable waterways and submerged lands, not in a proprietary capacity, but as a “trustee of a public trust for the benefit of the people” (*Colberg, Inc. v. State of California ex rel. Dept. Pub. Works*, 67 Cal.2d 408, 416 [1967]). Upon admission to the Union in 1850, California, as a

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Figure 1-1. Regional Setting and Project Location Map

1 **Figure 1-2. Regional Coastal Sand Transport and Management**

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1 sovereign state, received title to these tide and submerged lands and navigable
2 waterways under the equal-footing doctrine (*Martin v. Waddell*, 41 U.S. 367, 410
3 [1842]). The Public Trust Doctrine, as a common law doctrine, is not static but is
4 continuously evolving.

5 Pursuant to the Public Trust Doctrine, tide and submerged lands, including lands under
6 navigable waterways (collectively referred to as “public trust lands”) are owned by the
7 states and held in trust for the benefit of the public. These lands are to be used to
8 promote the public’s interest in water dependent or water oriented activities including,
9 but not limited to, water-related commerce, navigation, fisheries, environmental
10 preservation and water-related recreation. The Public Trust Doctrine and California’s
11 Constitution also establish the right of the public to access and use public trust lands, as
12 well as establish the public’s right to fish on public trust lands (Cal. Const. Article X,
13 Section 4; Cal. Const. Article I, Section 25).

14 The California Legislature, representing the people of California, is a trustee of
15 California’s public trust resources and exercises its authority and responsibility to enact
16 laws to protect and promote prudent use of public trust lands and the living resources
17 therein. *National Audubon Society v. Superior Court*, 33 Cal. 3d 419 (1983) states that the
18 core of the Public Trust Doctrine is the state’s authority as sovereign to excise a
19 continuous supervision and control over the waters of the state to protect ecological and
20 recreational values. It also has delegated its trust powers and duties to agencies such as
21 the CSLC (Pub. Resources Code, §§ 6301, 6216). The Legislature has also granted, in
22 trust, the management of certain public trust lands over to other governmental agencies,
23 typically local governments (Pub. Resources Code, §§ 6009, 6301, and 6306; see CSLC
24 website www.slc.ca.gov/Granted_Lands/Granted_Lands_Main.html). Other state public
25 resources held in trust are managed by other agencies, such as the California
26 Department of Fish and Game (CDFG), the Department of Water Resources (DWR), and
27 the California Department of Parks and Recreation. CSLC is the steward of the state’s
28 public trust lands. CSLC manages California’s public trust lands and consequently has
29 the duty to promote public trust consistent uses of these lands, as well as protect these
30 lands for the purposes of preserving and continuously assuring the public’s ability to
31 access, use and enjoy the public trust resources occupying these lands and waters.

32 Public trust lands are not alienable in that all of the public’s interest in them cannot be
33 extinguished (*People v. California Fish Co.*, 166 Cal. 576, 597-99 [1913]; *Illinois Central*
34 *v. Illinois*, 146 U.S. 387 [1892]; Cal. Const. Article X, Section 4; Pub. Resources Code, §
35 7991). Public trust lands cannot be bought and sold like other state-owned lands; only in
36 rare cases may the public trust be terminated, and only where consistent with the
37 purposes and needs of the trust (*City of Long Beach v. Mansell*, 3 Cal. 3d 462 [1970]).
38 In addition, the living resources (e.g., the fish and aquatic plant and animal life)
39 inhabiting public trust tide and submerged lands and the overlying waters are public

1 trust resources and also subject to the protections of the Public Trust Doctrine (Coastal
2 States Organization 2007).

3 Public trust lands may also be kept in their natural state for habitat, wildlife refuges,
4 scientific study, or use as open space (*Marks v. Whitney*, 6 Cal 3d 251 [1971]). Ancillary
5 or incidental uses – those that directly promote trust use, are directly supportive and
6 necessary for trust use, or that accommodate the public's enjoyment of trust lands – are
7 also permitted (CSLC 2001). Because public trust lands are held in trust for all citizens
8 of California, they must be used to serve statewide goals, as opposed to purposes that
9 are purely of local benefit (*Mallon v. City of Long Beach*, 44 Cal.2d 199 [1955]; Pub.
10 Resources Code, § 6009).

11 CSLC has management jurisdiction and authority over public trust lands and the
12 property interests in these lands that are retained by the state. CSLC also retains the
13 remaining state authority over lands that have been legislatively granted in trust to other
14 governmental agencies (Pub. Resources Code, § 6301). CSLC acts pursuant to the
15 California Constitution, legislative direction and the Public Trust Doctrine to protect the
16 public's interest in these public trust lands. CSLC implements the Public Trust Doctrine
17 through careful consideration of its principles and the exercise of discretion within the
18 specific context and location of proposed uses. In administering its trust responsibilities,
19 CSLC exercises its discretionary authority in the best interests of the state,
20 accommodating the changing needs of the public while preserving the public's right to
21 use public trust lands for the purposes to which they are uniquely suited.

22 *Tidelands*, which by definition are public trust lands, are those lands generally covered
23 and uncovered by the daily rise and fall of the tide. Specifically, tidelands are the lands
24 lying between the intersections of the plains of mean high water and mean low water
25 and land (*City of Berkeley v. Superior Court*, 26 Cal.3d 515, 519 [1980]). In tidal areas
26 the landward boundary of the State's sovereign ownership is the ambulatory ordinary
27 high water mark (OHWM) (Cal. Civil Code, § 830). Generally, the OHWM is measured
28 by the mean high tide line (MHTL) (*Borax v. City of Los Angeles*, 296 U.S. 10 [1935]),
29 except where there has been fill or artificial accretions or the boundary has been fixed
30 by agreement or court decision (*Lechuza Villas West v. California Coastal Commission*,
31 60 Cal. App. 4th 218 [1997]; Pub. Resources Code, §§ 6307, 6357).

32 *Submerged Lands* are also public trust lands. On the Pacific Coast they include the land
33 extending from mean low water seaward out to three (3) nautical miles offshore. The
34 federal Submerged Lands Act of 1953 granted ownership of these lands and the
35 resources within the overlying body of water to the coastal states, including California
36 (*United States v. California*, 436 U.S. 32, 37 [1978]).

1.3.1 Public Trust Resources in the Project Area

The Project area includes numerous lateral AREs dedicated by former or current owners of land within the GHAD and held by various agencies including CSLC. An informal public use survey was conducted in June 2012 to get a better understanding of public use of Broad Beach (see Appendix E). Documented uses included, but were not limited to, surfing, swimming, tidepooling, dog walking, beachcombing, and walking and running for exercise and enjoyment.

1.3.2 Public Trust Resources in the Off-site Project Areas

The Off-site Project area offshore Dockweiler State Beach was granted to the city of Los Angeles pursuant to *Chapter 651, Statutes of 1929*, as amended, and *Chapter 1513, Statutes of 1945*, as amended, and thus this sand source is under control of the city of Los Angeles. Minerals were not reserved to the State through this statutory trust grant. Public trust tide and submerged lands offshore of Dockweiler Beach support extensive recreational activities (e.g., surfing, fishing, boating) as well as living marine and avian resources.

The Ventura Harbor Off-site Project area is located approximately 27 miles northwest of Broad Beach, within the city of San Buenaventura in Ventura County. The harbor and offshore areas provide access to recreational and commercial activities related to public trust resources, including swimming, surfing, sailing, and fishing. Sediment deposits on submerged public trust lands outside Ventura Harbor and within the CSLC's leasing jurisdiction are one of three potential sand sources for the Project. CSLC recently authorized a lease to the Ventura Port District that includes maintenance dredging (CSLC Lease No. PRC 2881.9).

The Trancas Sediment deposit is located approximately 0.25 mile offshore of Broad Beach. Similar to the other Off-site Project areas this area provides access to recreation and commercial activities related to public trust resources including sailing and fishing.

Off-site Project areas also include the public trust lands downcoast of Broad Beach (e.g., Zuma Beach), which may be affected by the deposition of dredged sand via littoral drift. During the informal public use survey of Broad Beach a number of anecdotal observations were made regarding the interconnection between use of Zuma Beach and Broad Beach. This location was heavily used by the public. These areas provide access to a number of recreation activities, including swimming, surfing, sunbathing, and walking.

1.3.3 Activities Affecting Off-Site Public Trust Resources

Activities associated with Project implementation that may affect public trust resources include the following:

- Transport of sediment from Ventura Harbor and/or Dockweiler Beach would require between 100 and 300 trips by scow or dredge for each major nourishment event over public trust lands;
- Removal of sediment from Ventura Harbor and/or Dockweiler Beach, a potential loss of beach grade sand from the affected littoral cells, could potentially affect public trust lands, living resources and recreational-commercial use of such lands within and downcoast from those sites.
- Deposition of sand in the Project area may affect the coastal processes of downcoast beaches, including beach width.

1.4 PUBLIC REVIEW AND COMMENT

This APTR is being distributed to local, State, and Federal agencies and to interested individuals who may wish to review and comment on the document. . The review period and where to submit comments are detailed in the notice of public review of this document. Verbal and written comments on this APTR will be accepted at a noticed public meeting, which is also detailed in the notice of public review. All comments received will be considered as they relate to impacts to public trust resources and values and the contents of this document.

This APTR identifies anticipated potential adverse and beneficial Project effects on existing public trust resources and values, indicates avoidance or minimization measures to avoid or reduce those impacts, and identifies and evaluates potential Project alternatives. This document is intended to provide the CSLC with information required to exercise its jurisdictional responsibilities with respect to the Project, which would be considered at a scheduled noticed public meeting of the CSLC.

1.5 PERMITS, APPROVALS, AND REGULATORY REQUIREMENTS

In addition to the action of issuing a lease by the CSLC, implementation of the Project will require the following permits and approvals from reviewing authorities and regulatory agencies:

Table 1-2. Local, State, and Federal Permit Requirements

Local	Coastal Development Permit (CDP) per Malibu Local Coastal Program (LCP) Local Implementation Plan Section 13.4.1, issued by the city of Malibu.
	Encroachment Permit for use of the parking lot at Zuma Beach County Park (to be used for staging), issued by the County of Los Angeles.
	Approval from city of Los Angeles to dredge sand from the Dockweiler sand source
State	CDP, issued by the CCC.
	Permits to allow ingress/egress via State Highway 1, issued by California Department of Transportation (Caltrans).
	Section 401c Water Quality Certification and National Pollutant Discharge Elimination System (NPDES) permit, issued by the Los Angeles Regional Water Quality Control Board (RWQCB).
	A Streambed Alteration Agreement related to Trancas Creek may also need to be obtained from the CDFG, South Coast Region.
Federal	Sections 10 and 404 Permits, issued by the U.S. Army Corps of Engineers (USACE).

Any future beach nourishment efforts (i.e., annual or biannual transportation of sand via backpassing or major renourishment after a 10-year interval) for the Project may require additional agency approvals.

1.6 REGIONAL SAND SUPPLY MANAGEMENT EFFORTS

The Project would occur within the context of other ongoing sand management efforts along the California coast. These efforts are described below.

1.6.1 Coastal Sediment Management Workgroup

The California Coastal Sediment Management Workgroup (CSMW), a consortium of State and Federal agencies and non-governmental organizations, is developing and implementing the California Coastal Sediment Master Plan to foster a regional sediment management approach for the entire state. Through this effort, region-specific issues and solutions are coordinated with local/regional partners through a series of Coastal Regional Sediment Management (RSM) Plans designed around littoral cell management, and containing Governance, Outreach, Physical, Economic, and Environmental elements. Preparation and implementation of Coastal RSM Plans along the California coastline will culminate in CSMW's Master Plan. To date, CSMW and its regional partners have completed three Coastal RSM Plans, using criteria prepared by CSMW as a starting point; plans for six additional segments of the California coastline are either under preparation or will be in the near future as shown below.

1 **Table 1-3. Coastal RSM Plans**

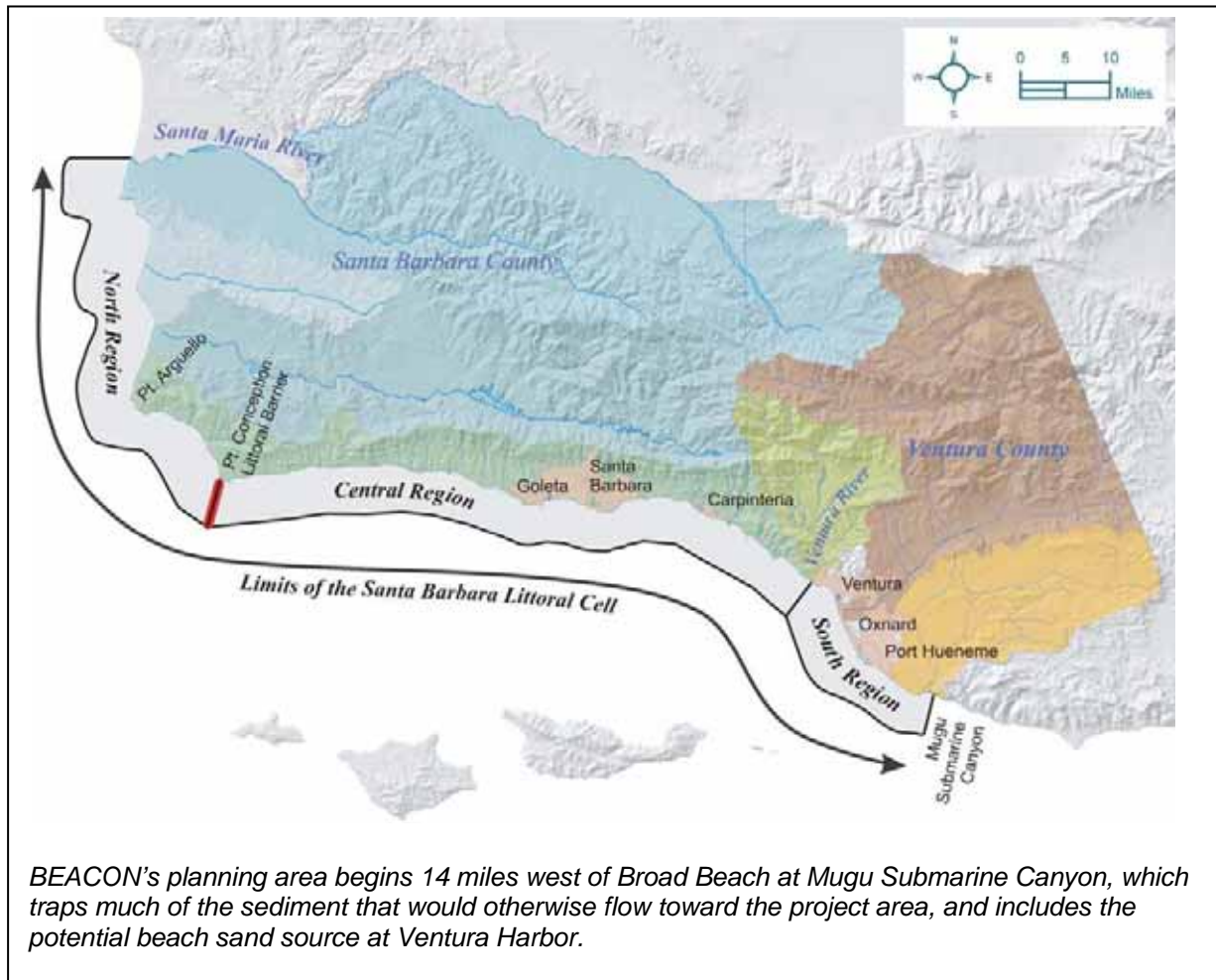
Cell	Coastal Segment	CWMW Regional Partner	RSM Plan Status
Southern Monterey Bay Littoral Cell	Moss Landing south to Point Pinos	Association of Monterey Bay Area Governments (AMBAG)	CSMW's first Coastal RSM Plan completed in November 2008.
Santa Barbara Littoral Cell	Point Conception south to Point Mugu	Beach Erosion Authority for Clean Oceans and Nourishment (BEACON)	Completed in January 2009 (see Section 1.6 2).
San Diego County	Oceanside south to Mexico border	San Diego Association of Governments (SANDAG)	Completed in April 2009.
Orange County	Littoral cells within Orange County	U.S. Army Corps of Engineers, County of Orange	Draft Plan released April 2012
Eureka Littoral Cell	Trinidad Head south to False Cape	Humboldt Bay Harbor Recreation and Conservation District	In preparation.
Los Angeles County	Coastal area within Los Angeles County	U.S. Army Corps of Engineers, County of Los Angeles	Draft completed in August 2012 (see Section 1.6.3).
San Francisco Central Bay	Central Bay to Golden Gate Bridge	Bay Conservation and Development Commission (BCDC)	BCDC is initiating RSM Plan preparation.
San Francisco Littoral Cell	Golden Gate Bridge to Pacifica	Association of Bay Area Governments (ABAG)	CSMW is evaluating potential regional partners to establish a governance structure.
Santa Cruz Littoral Cell	Santa Cruz to Moss Landing	AMBAG	To be prepared when funds have been obtained.

2 Details on the two coastal segments and Plans relevant to the Project are provided
3 below.

4 **1.6.2 BEACON**

5 The Beach Erosion Authority for Clean Oceans and Nourishment (BEACON), a joint
6 powers authority that includes Santa Barbara and Ventura Counties, as well as various
7 coastal cities within each county, covers a coastal area that includes the entire Santa
8 Barbara County shoreline and most of the Ventura County shoreline. The BEACON
9 coverage area defines the limits of the approximately 144-mile-long Santa Barbara
10 Littoral Cell which extends from the mouth of the Santa Maria River in northern Santa
11 Barbara County to the Mugu Submarine Canyon off of Point Mugu in Ventura County.
12 This two-county shoreline segment may be divided into three distinct regions: the North,
13 Central, and South regions which vary in their shoreline orientation, physical
14 characteristics, land use, and population density.

BEACON's RSM Plan, completed in 2009, summarizes the baseline science and relevant physical processes for the area, and identifies challenges and related opportunities. Potential projects proposed in the RSM Plan and analyzed in the associated Environmental Impact Report include the installation of offshore sand retention structures and beach nourishment at West Hueneme Beach and Rincon Parkway, and the investigation of ways to capture sand for re-use before it is lost to Mugu Canyon.



1.6.3 Los Angeles County

The Los Angeles County coast fronts on both the Santa Monica and San Pedro Littoral Cells. The rocky promontory of the Palos Verdes Peninsula and Redondo Canyon interrupts these two littoral cells and inhibits sand transport between them. The Broad Beach Restoration Project site is located within the Santa Monica Littoral Cell. The planning region may extend for approximately 85 miles of coastline from Mugu Canyon on the north to the Los Angeles County line, although precise boundaries have not yet been set. Funding for the Los Angeles County Coastal RSM Plan has been obtained

1 and a consultant has been retained to conduct background research in support of the
2 RSM Plan for Los Angeles County. The CSMW expects that the RSM Plan will be
3 coordinated through Los Angeles County Beaches and Harbors with input from the
4 County Department of Public Works; however, this governance has not yet been
5 finalized.

6 The U.S. Army Corps of Engineer's RSM Plan, completed in 2012, summarizes the
7 baseline science and relevant physical processes for the area, and identifies challenges
8 and opportunities. Coastal sediment management solution strategies proposed in the
9 RSM Plan for the Malibu region include: establishing an ongoing beach nourishment
10 and erosion control program within the littoral sub-cell at the west end of the reach;
11 removing or relocating improvements in response to the long-term natural shoreline
12 erosion trend; allowing areas of the shoreline which are relatively sediment-limited to
13 exist in a more natural state; and removal of the Rindge Dam and pursuing economical
14 ways and means to recover the trapped sediment behind it for beneficial use (U.S. Army
15 Corps of Engineers 2012).

